NASA LANGLEY RESEARCH CENTER
ROTORCRAFT CHILLER CART
STATEMENT OF WORK v2

1. INTRODUCTION

A replacement air-cooled chiller unit to cool two electric motors used for rotorcraft testing in the 14x22 facility is needed. Currently, an aging air-cooled chiller unit is used to cool the motors, but its performance has begun to degrade and does not cool the motors as efficiently as possible, limiting the operating conditions of the motors and thus rotorcraft experimental testing. A replacement unit is needed in order to continue rotorcraft testing capability in the 14x22 facility at NASA LaRC. The unit is intended for indoor use only, and it is required that the unit be portable, as it is moved between the rotor test cell and the tunnel test section in the 14x22 facility depending on the specific rotorcraft testing needs.

2. REQUIREMENTS

A direct replacement of the current chiller is required. The specifications of the current chiller are:

a) 5 ton refrigeration capacity
b) 24 gallon water storage capacity
c) 14 gallon refrigerant charge
d) Chiller set point of 65°F
e) System pump: Burks 350CS8M, 5 hp, 3-Phase
f) Bypass motor: Baldour M3538, ½ hp
g) Test pressure: high side 400 psi, low side 250 psi
h) 460V, 3 phase, 60 Hz
i) R22 or 410a refrigerant
j) WC34-PR filter housing and filter
k) Indoor use
l) Portable

The replacement chiller shall be able to achieve similar results (pressures, flow rates) as the current system with the above components.

The current chiller is able to adjust the outlet pressure between 60 and 100 psi using a bypass system, and the replacement shall be able to do the same through a bypass system or electronically.

The current chiller is operated with flow rates between 7 gpm and 15 gpm.

The replacement chiller shall utilize a 0.75” or 1” pipe inlet/outlet.

The chiller shall have a water storage capacity of between 24 and 30 gal; any larger water storage tank limits the portability of the unit.

The replacement air-cooled chiller unit is needed by 31 August 2015.

Bid shall include specs and model numbers for the main components of the chiller (e.g. system pump, condensing unit, etc.).

3. COMPLIANCE WITH SPECIFIC STANDARDS

As required in clause 52.223-15 Energy Efficiency in Energy-Consuming Products, the contractor shall only provide products that meet Federal Energy Management Program (FEMP) purchasing specifications for energy efficiency under this contract, as applicable. Covered product categories and the applicable energy efficiency requirements can be found at http://energy.gov/eere/femp/covered-product-categories.

In the technical proposal, offerors shall identify the FEMP-designated product(s) by brand, model name, and model number to be supplied under this contract. In addition, offerors shall provide supporting documentation, such as product specification sheets (or a link to supporting documentation), that clearly demonstrates compliance with the applicable FEMP energy efficiency requirements. Compliance must be determined based on the industry-recognized testing standards identified by FEMP.

4. DELIVERABLE ITEMS

The contractor shall provide one (1x) portable air-cooled chiller unit to the 14x22 Army rotorcraft testing group at NASA Langley Research Center. The contractor shall deliver the chiller to the following address:
NASA Langley Research Center
17W Taylor Street
Building 1212C, Room 108
Attention: Philip Tanner
Alternate POC: Bryan Mann
Hampton VA 23681
Phone: 757-864-2158

5. SELECTION CRITERIA

The Government will award a delivery order resulting from this solicitation to the offer or whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. In the selection for delivery, the overall order award will place equal importance to the understanding of the requirement, ability to meet the schedule requirements, cost, and prior performance. As part of the technical evaluation, the Government also will confirm that each offered product meets all applicable energy efficiency specifications. Any offered product that does not meet the minimum requirements will be considered non-responsive.